



# ENDANGERED SPECIES TECHNICAL BULLETIN

Department of the Interior • U.S. Fish and Wildlife Service • Endangered Species Program, Washington, D.C. 20240

## EDITORIAL

We apologize for the delay in getting the October BULLETIN to you. As most of you now know, Congress and the President have acted to amend the legislation which we have been charged to administer. In the process, we lost 41 days from normal program operations because we lacked legal authorization to function beyond the close of the 1978 fiscal year which ended September 30th.

During this time, staffers employed to implement all but section 6 of the 1973 Act—for which authorization was extended in an earlier amendment—were precluded from working on permit processing (under both the Act and the Convention), species data review and listing, recovery planning, responses to public and congressional inquiries, and to some degree enforcement of the Act's prohibitions.

As you learn the details of the 1978 amendments, I trust you will understand the significant impact these modifications will have on many aspects of the program. While our departmental solicitors have yet to give us their legal interpretations of what we must do to implement the new requirements, we do know that the pace at which we can proceed to comply with the Act's protective provisions will now be substantially slowed. I hope that you will bear with us as we grapple with the new stipulations, and develop the necessary regulations and procedural guidelines essential to making us fully operative.

It is my belief that, for the most part, these amendments serve not to weaken the integrity of the 1973 Act, but to reaffirm the commitment of Congress in passing this landmark legislation. The Amendments will strengthen the consultation process under the mandates of Section 7, and will insure increased public involvement as we

move to protect imperiled plants and animals and the habitats critical to their survival.

After 6 weeks with our doors officially closed, the Endangered Species Program is once again back in busi-

ness—and it's good to be back!

Keith M. Schreiner  
Associate Director and  
Endangered Species  
Program Manager

## President Signs Endangered Species Amendments

On Friday, November 10th, President Carter signed "The Endangered Species Act Amendments of 1978," reauthorizing administration of the Endangered Species Act of 1973 and, among other things, establishing a cabinet-level committee authorized to exempt Federal agencies from compliance with some of the Act's protective provisions.

(Section 7 of the Act requires all Federal agencies to insure that their actions do not jeopardize the continued existence of Endangered or Threatened species, or result in the adverse modification of their Critical Habitats.)

Although congratulating Congress for working hard to resolve this difficult issue, the President expressed some misgivings in approving the compromise approach to handling irresolvable conflicts under the section 7 mandate. "While I believe that this new exemption process is not necessary, I hope that as the committee carries out its responsibilities, it will make the utmost efforts to protect the existence of the species inhabiting this planet."

The President emphasized his belief that the Act has worked without such an exemption process "because all agencies have made efforts to resolve conflicts and, where necessary, to pursue alternate courses of action. This consultation and cooperation should continue under these new amend-

ments, minimizing the number of requests for exemptions." Upon signing the bill, Carter directed committee members to be "exceedingly cautious in considering exemptions," and asked that national security exemptions be exercised "only in grave circumstances posing a clear and immediate threat to national security." In the words of the President, "Destruction of the life of an endangered or threatened species should never be undertaken lightly, no matter how insignificant the species may appear today."

### Congress Sought More Flexibility

President Carter's approval followed a flurry of congressional activity during which House and Senate conferees

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**U.S. and Mexico agencies are working to save Endangered Kemp's ridley.**

See Story on page 6

## Regional Briefs

Endangered Species Program regional staffers have reported the following activities for the month of September.

**Region 1.** The third segment of the Hawaiian forest birds survey, completed in September, puts the population of the Hawaiian crow or alala (*Corvus tropicus*) at over 100 birds—considerably above previous estimates. (Next summer's survey will complete

the Island of Hawaii, and will take in Molokai and Lanai.)

Eight Newell's manx shearwater chicks (*Puffinus puffinus newelli*) hatched by foster parent wedge-tailed shearwaters at Kilauea Point on Kauai were 43-58 days old at the close of September. During the month, the public assisted the Service in gathering and banding over 800 Newell's shearwaters on Kauai. The birds, attracted by lights as they fly during the night, were easily collected near streetlights and buildings and taken to fire stations, where they were temporarily held and banded.

Peregrine falcon (*Falco peregrinus anatum*) Pacific Coast nesting surveys are in for the summer. According to counts by State and Service personnel at the end of September, there were 23 active nests in California. Production was documented at 16 nests from which 24 young fledged. One additional nest was found in the State of Washington, although no nesting peregrines were sighted in the Oregon survey.

Inventories of potential Endangered and Threatened plants have been completed on the Desert and Sheldon National Wildlife Refuges in Nevada. Candidate species were found on both refuges.

**Region 2.** In September, personnel from the Service, other involved Federal agencies, and the Mexican Government met in Galveston to review the year's efforts to boost the declining Kemp's ridley population (see story on page 6). Attendees laid plans for forthcoming years while looking at problems encountered thus far.

**Region 5.** Through the Extension Education Program, the Massachusetts Division of Fish and Wildlife has developed a draft brochure on the Plymouth red-bellied turtle (*Chrysemys rubriventris bangsi*). The publication aims to inform local landowners and town officials of the species and implications of its anticipated listing and Critical Habitat designation. (The brochure will be distributed through the Extension Education network once the turtle is listed.)

**Region 6.** The Service has signed a memorandum of agreement with Colorado and South Dakota for Extension Education projects on endangered species.

Using \$10,000 in Service funds, Colorado State University (at Fort Collins) will prepare and print a publication on Endangered, Threatened and rare fishes of the Upper Colorado River Basin (intended for water user, agricultural, and energy development interests).

At a cost of \$6,750, the South Dakota State University is preparing a

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**NOTICE!** In early October, the Washington staffs of the Office of Endangered Species, the Wildlife Permit Office, and the Division of Federal Aid moved to Arlington, Virginia. For those wishing to visit these offices, all are located in the Broyhill Building (1000 N. Glebe Road, Arlington, Virginia), but their mailing address will remain the same (c/o U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240). New phones for the respective offices are given below.

### Office of Endangered Species:

Chief ..... 703/235-2771  
Branch of Biological Support ..... 703/235-1975  
Branch of Management Operations ..... 703/235-2760  
Branch of Program and Administrative Services ..... 703/235-2407

### Wildlife Permit Office:

Chief ..... 703/235-1937  
Permit Branch ..... 703/235-1903  
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### U.S. Fish and Wildlife Service Regions

**Region 1:** California, Hawaii, Idaho, Nevada, Oregon, Washington, and Pacific Trust Territories. **Region 2:** Arizona, New Mexico, Oklahoma, and Texas. **Region 3:** Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. **Region 4:** Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee. **Region 5:** Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, and West Virginia. **Region 6:** Colorado, Iowa, Kansas, Missouri, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming. **Alaska Area:** Alaska.

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## Amendments

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worked through the last hours of the 95th Congress to hammer out the compromise bill. Motivated primarily by the recent Supreme Court ruling upholding the applicability of the 1973 Act to the nearly completed Tellico dam, a number of members of Congress believed the legislation should be changed to provide for human and economic as well as biological considerations in resolving conflicts under section 7. The Senate on July 19 approved a bill to create a special committee to consider exemptions for Federal actions, while on October 14 the House voted out yet a separate administrative mechanism to rule on conflicts (creating not only a committee, but also a review board to determine the appropriateness of exemption applications).

In submitting its final report on H.R. 14104, subsequent to oversight hearings on the 1973 legislation, the House Committee on Merchant Marine and Fisheries stated that "... the evidence developed at these hearings suggests that the consultation process can resolve many if not most of the conflicts that might develop under the Act. ... It is clear, nevertheless, that there will continue to be some federally authorized activities which cannot be modified in a manner which will avoid a conflict with a listed species." The report concluded that "the bill attempts to retain the basic integrity of the Endangered Species Act, while introducing some flexibility which will permit exemptions from the Act's stringent requirements."

### EDITOR'S NOTE:

*Although we would like to present a detailed analysis of the 1978 amendments, Public Law 95-632 has brought many changes which have not yet been subjected to legal interpretation. We have therefore refrained from premature attempts to explain new or revised provisions. Detailed definitions of new terms, procedures for implementing the amendments, and other pertinent interpretations will be provided in the form of solicitors' opinions or proposed regulations, as appropriate, at the earliest possible time.*

As discussed in the following sections, the amendments not only provide for an exacting, two-tiered review process to consider exemptions under section 7, they also affect the consultation process, listing, Critical Habitat determinations, cooperative agreements with the States, enforcement

and penalties, recovery planning, captive-held raptors, and public hearing/notice procedures.

### Consultation Process Modified

Report language from both the House and Senate indicates that their intent in the wording of the new section 7(a) was not to diminish the agencies' mandate to consult with the Secretary, but rather to strengthen the consultation process. According to the new provisions, consultation is to be concluded within 90 days (formerly 60 days by Service regulations) after initiated, or at a time agreed to by the Secretary and the involved agency.

A new section 7(b) requires the Secretary's biological opinion (rendered at the conclusion of consultation) to detail how the agency's action would affect the listed species or its Critical Habitat, and to suggest "reasonable and prudent alternatives" that would avoid jeopardy to the species or adverse modification of its Critical Habitat.

Under a new section 7(c), each Federal agency is now required—with respect to actions for which no contract for construction has been entered into and no construction has begun on the date of enactment of the amendments—to request information from the Secretary regarding the presence of any listed or proposed species within the area of the proposed action. If such species are present, then the agency must prepare a biological assessment within 180 days (or a time mutually agreed to by the agency and the Secretary) identifying species likely to be affected by its action.

Once consultation has been initiated, the amendments stipulate that no irreversible or irretrievable commitment of resources may be made by the agency which forecloses the implementation of alternative measures to avoid jeopardy or adverse impacts on the species or its Critical Habitat.

### The Exemption Process

Following consultation, the amendments provide for an elaborate review process through which Federal agencies (and permit or license applicants) may be exempted from the requirements of section 7. Should the Service's biological opinion result in a finding of jeopardy to the species or modification of its Critical Habitat, the involved agency, the Governor of the State in which the action was to occur, or the permit or license applicant may—within 90 days of issuance of the biological opinion—submit an application to the Secretary of the Interior

requesting exemption from the Act's protective requirements.

As outlined in the accompanying flowchart, the first step in the exemption process is the formulation of a Review Board. A board is to be established upon the receipt of the exemption application, to consist of one member appointed by the Secretary of the Interior within 15 days, one member from the affected State to be appointed by the President within 30 days, after consideration of any recommendations by the Governor(s) of the affected State(s), and an Administrative Law Judge selected by the Civil Service Commission.

The Review Board must then consider the application within 60 days after its appointment, making a full review of the consultation carried out and determining, by majority vote, (1) whether an irresolvable conflict exists and (2) whether the exemption application has:

- carried out its consultation responsibilities in good faith and has made "a reasonable and responsible effort to develop and fairly consider modifications or reasonable and prudent alternatives to the proposed agency action" which would avoid jeopardy to the species or adverse modification to its Critical Habitat;
- conducted a biological assessment, if required; and
- refrained from making an irreversible or irretrievable commitment of resources.

The Secretary of the Interior is also called upon to submit to the board his views and recommendations concerning the exemption request within 60 days after his receipt of the application.

Any finding by the board that the applicant has failed to meet any of the exemption criteria given above will be considered final action under the Administrative Procedures Act.

If, however, the Review Board makes a positive finding concerning the applicant's eligibility, then the board will proceed to prepare a report for the cabinet-level Endangered Species Committee, to be presented within 180 days following the board's findings. As provided under section 7(g)(7), the report must address the following issues:

- "(A) the availability of reasonable and prudent alternatives to the agency action, and the nature and extent of the benefits of the agency action and of alternative courses of action consistent with conserving the species or the critical habitat;
- "(B) a summary of the evidence concerning whether or not the agency action is in the public interest and is of national or regional significance;

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## Amendments

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"(C) appropriate reasonable mitigation and enhancement measures which should be considered by the Committee."

The Endangered Species Committee, which is to make a final decision on whether or not to exempt a Federal agency action from the requirements of section 7(a) is to consist of the following seven members:

The Secretary of the Interior  
(as Chairman)

The Secretary of Agriculture

The Secretary of the Army

The Chairman of the Council of Economic Advisors

The Administrator of the Environmental Protection Agency

The Administrator of the National Oceanic and Atmospheric Administration

A State representative, as appointed by the President after consideration of recommendations from the Governor(s) of the affected State(s).

Five members of the Committee must be present to constitute a quorum, and the Committee shall meet at the call of the Chairman or five of its members. An exemption may be granted by the Committee, by majority vote of at least

five of its members (voting in person), if it determines within 90 days after receipt of the Review Board's report that:

"(i) there are no reasonable and prudent alternatives to the agency action;

"(ii) the benefits of such action clearly outweigh the benefits of alternative courses of action consistent with conserving the species or its critical habitat, and such action is in the public interest; and

"(iii) the action is of regional or national significance. . . ."

At the time of an exemption determination, the Committee must also establish "reasonable mitigation and enhancement measures, including, but not limited to, live propagation, transplantation, and habitat acquisition and improvement, as are necessary and appropriate to minimize the adverse effects of the agency action upon the endangered species, threatened species, or critical habitat concerned."

Once granted, an exemption shall be considered permanent with respect to all Endangered and Threatened species for the purposes of completing an agency action, if any required biological assessment has been conducted. If, however, the Secretary of the Interior finds that the project or

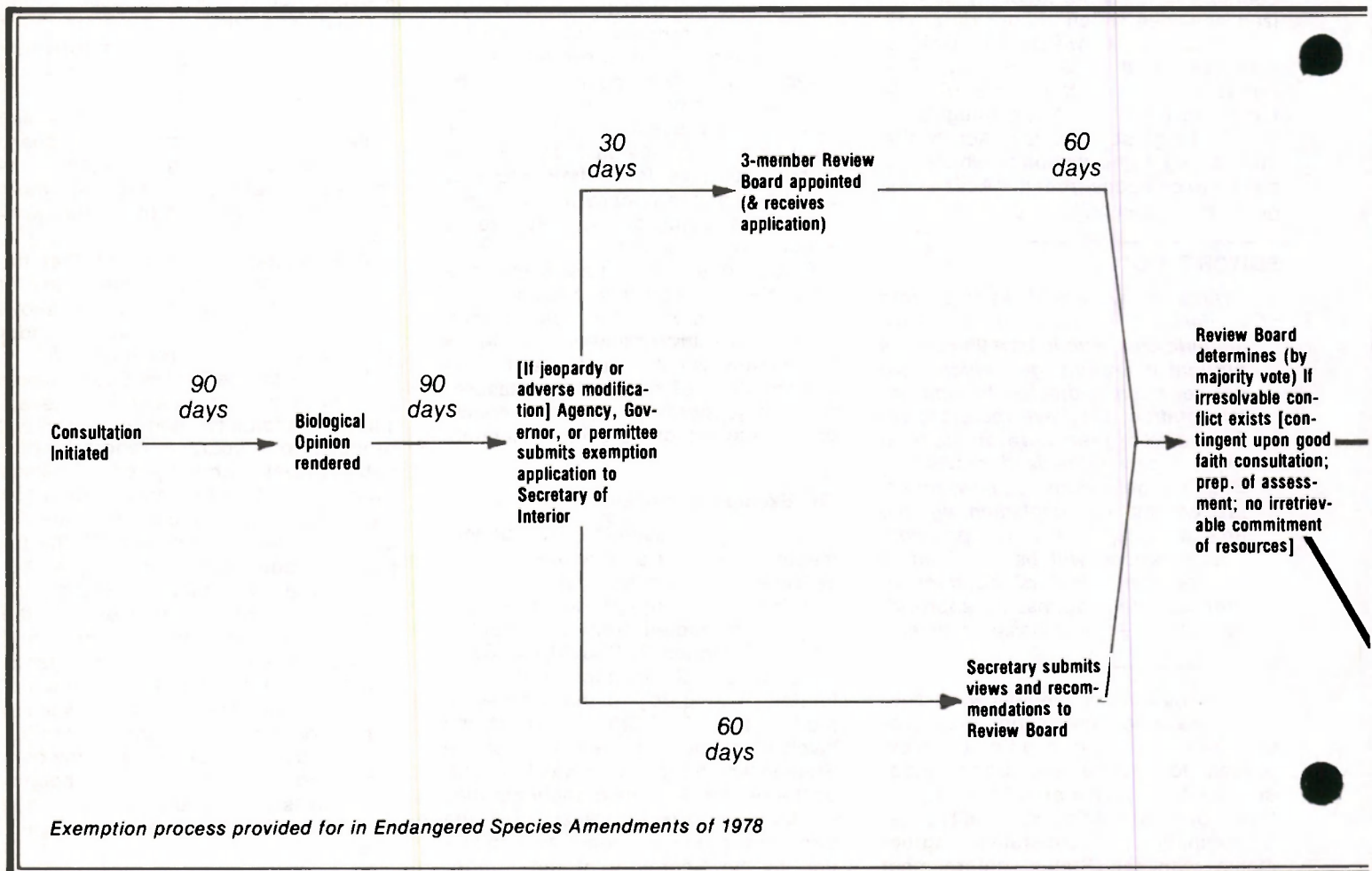
action would result in the extinction of the species, the exemption shall not be permanent, and the Committee must reconsider the exemption (within 30 days following the Secretary's finding) and determine whether to uphold the exemption order.

Three exceptions to the exemption review process are provided for:

- the Secretary of State may prohibit exemption consideration for actions that would violate any international treaty obligations of the United States (by submitting such findings to the Committee in writing within 60 days after the receipt of an exemption application).
- the Secretary of Defense can exempt actions from the provisions of section 7 if he finds that the actions are necessary for national defense.
- the President may grant exemptions for declared major disaster areas.

The Committee's final decision is subject to judicial review, and any person wishing to appeal may bring such action to the U.S. Court of Appeals.

Once an exemption order is granted, the applicant shall pay for and carry out any mitigation and enhancement measures specified by the Committee. The applicant must also submit an annual report to the Council on Environ-



mental Quality, describing its compliance with the prescribed mitigation and enhancement measures. (These reports will then be published by CEQ in the *Federal Register*.)

To insure implementation of the new exemption process, the amendments also call for the promulgation of regulations by the Secretary "... which set forth the form and manner in which applications for exemption shall be submitted to the Secretary and the information to be contained in such applications."

#### Tellico and Grayrocks to be Reviewed

Two projects, Tennessee Valley Authority's Tellico dam and the Grayrocks Dam and Reservoir Project, have been pinpointed for early review. Within 30 days of enactment of the amendments, the Endangered Species Committee is to proceed to consider the exemption of the two projects (the latter proposed, and the former nearly completed but enjoined by the Supreme Court ruling) from the provisions of section 7.

The Committee is directed to exempt the projects—within 90 days after enactment of the amendments—if it determines that (1) there are no reasonable and prudent alternatives to the projects and (2) the benefits of

the projects outweigh the benefits of alternative courses of action consistent with conserving the affected species or their Critical Habitat, and the projects are in the public interest. If no decision is made by the Committee within the 90-day period, the projects shall be automatically exempted.

#### New Definitions, Listing Requirements

Several new definitions are provided in the amendments. A "species" which may be considered for protection under the Act is now limited to "... any subspecies of fish or wildlife or plant, and any distinct population segment of any species of *vertebrate* fish or wildlife which interbreeds when mature." (emphasis added)

Critical Habitat has been defined for the first time, revising the Service's definition (by regulation) to include

"the specific areas within the geographical area occupied by the species at the time it is listed ... on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management consideration or protection; and ... specific areas outside the geographical area ... upon a determination by the Secretary that

such areas are essential for the conservation of the species."

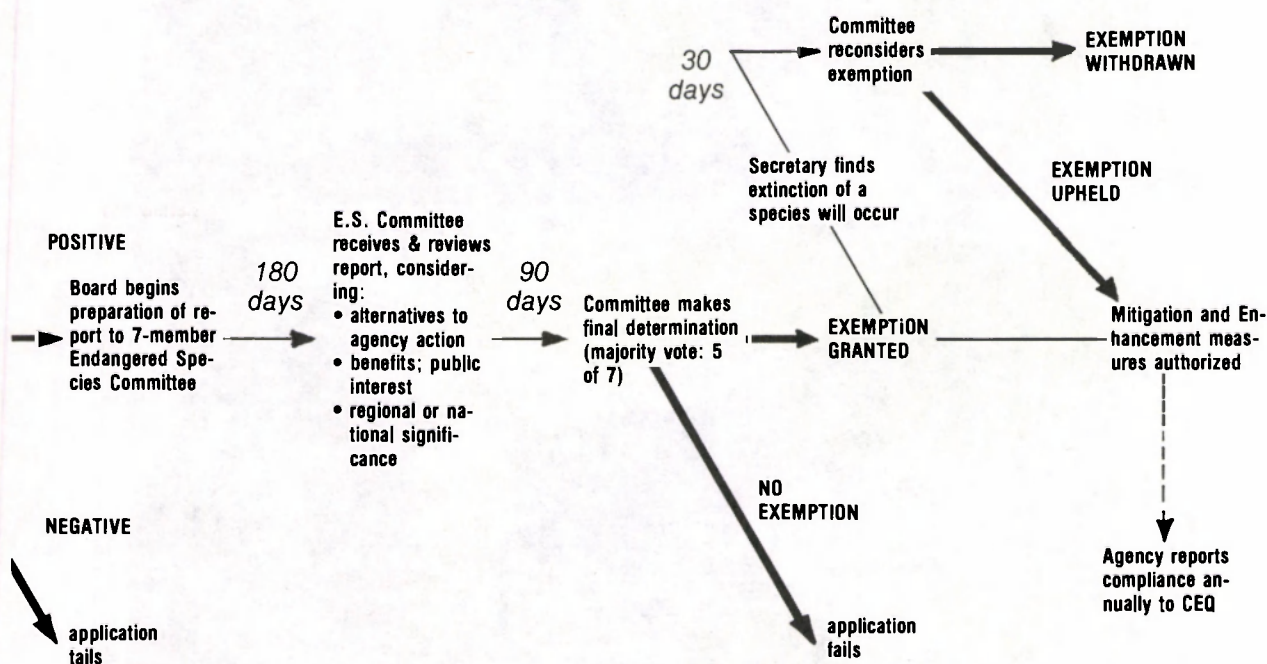
#### Economic Impact to be Considered

An amendment to section 4(b) now requires the Secretary to consider the economic impact of specifying any particular area as Critical Habitat. The language reads:

"(4) In determining the critical habitat of any endangered or threatened species, the Secretary shall consider the economic impact, and any other relevant impacts of specifying any particular area as critical habitat, and he may exclude any such area from the critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying the area as part of the critical habitat, unless he determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species."

A number of other provisions have been incorporated in section 4. To "the maximum extent prudent," Critical Habitat must now be determined at the time a species is listed. A more involved public notification process is now required prior to the listing of

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# U.S.-Mexico Restoration Efforts May Be Only Hope For Kemp's Ridley



Fish & Wildlife Service photo

*Unlike other sea turtles, the Kemp's ridley nests in the daylight making her and her clutch even more vulnerable to poaching and predation.*



To promote imprinting, project workers at Rancho Nuevo placed ridley eggs directly into bags containing sand from Padre Island. More than 2,000 eggs were positioned in 17 styrofoam containers, again between layers of Padre Island sand, and shipped to the U.S. for incubation and headstarting.



This NMFS headstarting facility in Galveston is now home to both "Padre Island" and Rancho Nuevo hatchlings. The turtles are kept in 6' x 20' raceways and 6' diameter tanks filled with treated water from the Gulf, where they subsist on a special pelleted food formula.

Having completed the first leg of their "action plan," the Mexican Government and four U.S. agencies are hoping they may be one step closer to saving the Kemp's ridley from extinction.

The Endangered Kemp's (or Atlantic) ridley sea turtle (*Lepidochelys kemp*) is the smallest of the world's marine turtles, weighing barely 100 pounds. The species' primary nesting site was discovered only in 1961, when

a 1947 film was viewed of one "arribada" of about 40,000 nesting females on Playa de Rancho Nuevo, a 14-mile beach in the Mexican State of Tamaulipas on the Gulf Coast. But this year, no more than 500 females arrived to nest at Rancho Nuevo.

Since 1966, Mexican marines have been posted on Rancho Nuevo to guard the turtles and their nests from natural predators and human poachers (the eggs are considered by many a deli-

cacy and aphrodisiac). But despite these seasonal patrols and other protective efforts, the ridley population has continued to plunge downward due also to incidental take during U.S. and Mexican shrimping operations. U.S. biologists now estimate the species' numbers at about 1,500-3,000, predicting its possible extinction within 10 years.

It is the critical status of the ridley that led Interior's Fish and Wildlife Service and National Park Service, the National Marine Fisheries Service of the Department of Commerce, and the Texas Parks and Wildlife Department to join with Mexico's Instituto Nacional de Pesca in a multi-faceted program to promote the survival of the turtle. Biologists from the five agencies have already succeeded in transplanting more than 2,000 ridley eggs from Mexico to the U.S. and are well into a "headstart" program as part of their cooperative effort to replenish the turtle's dangerously low population levels. The agencies' plan calls for (1) increasing the ridley population on its only known major nesting beach in Tamaulipas through both increased protection at Rancho Nuevo and captive rearing in the U.S., while (2) establishing a second nesting colony on the Padre Island National Seashore in Texas through imprinting and headstarting.

Managed by the National Park Service, Padre Island was selected for the attempt to create another nesting colony—a feat never before achieved with sea turtles—as the ridley has sporadically nested in the past along this narrow strip of land (which is similar to Rancho Nuevo in slope, profile, and sand grain size, and is fully protected).

### Imprinting Critical

Getting the ridleys to return to Padre Island to nest in significant numbers is the key to success of the first phase of the program. Starting a new colony may prove difficult, however, because of man's limited knowledge of the imprinting process through which turtles learn to distinguish their birthplace from all other beaches in the world, so that they may return some years later to nest.

Although scientists can only speculate as to what processes drive marine turtles to seek out their natal beach for nesting, turtle behavior had led many to conclude that the chemistry of both the sand and water may influence imprinting. The eggs undergo a rather lengthy incubation period (approximately 50 days), while exposed to one set of environmental conditions, and the hatchlings then exhibit a highly directed frenzy as they move

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## Kemp's Ridley

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from their nests to the ocean, not relaxing until they reach the Gulf Stream. Ridleys have also been seen thrusting their snouts deep into the sand as if smelling it.

### Eggs Bound for U.S.

This past May, when the ridleys pulled themselves from the Gulf onto Rancho Nuevo sands—as they have done for perhaps hundreds of thousands of years—Mexican and U.S. biologists watched while the turtles hollowed out their next cavities. But as the mother ridleys began dropping their eggs (much like slippery ping-pong balls, averaging 105 per clutch), project workers snatched more than 2,000 of them even before they could touch the Mexican sand, placing the eggs directly into bags with sand imported from Padre Island. In the first week of July, after the eggs were collected and positioned in styrofoam containers for incubation, the precious cargo was flown by the Park Service (and by a U.S. Coast Guard helicopter) to Padre Island, not far from the U.S.-Mexico border.

During incubation at Padre Island (varying from 49 to 53 days), the physical condition and temperature of the eggs were monitored daily. Infertile eggs were removed, and deionized water was used to prevent dehydration. When all had hatched, the newborn ridleys were released on the beach in early morning and allowed to rush toward the sea and then to swim for a few meters. About 1,860 hatchlings were imprinted in this manner (an 84 percent hatching rate) before they were taken from the Gulf and prepared for their second journey.

Packed carefully into cardboard boxes, the hatchlings were then airlifted by the Texas Parks and Wildlife Department to the NMFS marine laboratory at Galveston for headstarting. Here, in tanks full of specially treated water from the Gulf, the transplanted hatchlings will be nurtured in a controlled environment for 6 to 12 months, or until they are large enough to withstand most marine predators.

### Efforts to Boost Mexican Population

While counting nesting turtles, biologists back at Rancho Nuevo were also busy measuring and tagging the nesting females (which are generally oblivious to such activity during egg laying). More than 200 of the females were tagged in Mexico this summer.

With the assistance of the Fish and Wildlife Service, Mexican and U.S.

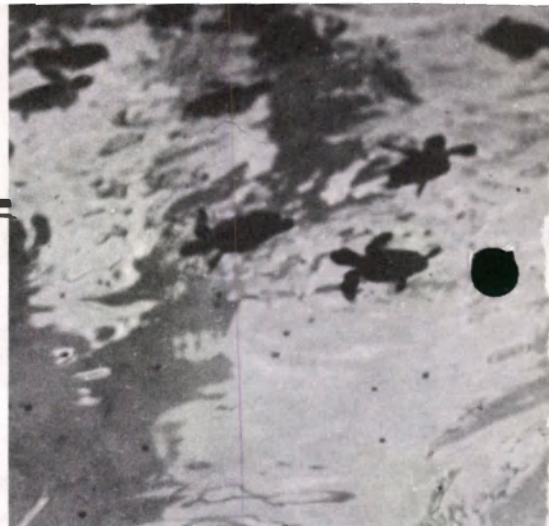
workers managed to gather some 85,000 eggs from nests at Rancho Nuevo (more than double that collected last year), placing 65,000 of them in a "corral" on the beach to safeguard them from predators such as ghost crabs, coyotes, and man. Another 20,000 eggs were placed in styrofoam containers in a covered "egg house" in an attempt to boost hatching success while permitting biologists to study the different incubation methods.

Several weeks later (incubation times averaged 48 days in the corral and 55 days in the house), nearly 36,500 hatchlings emerged from their artificial nests in the corral (a 56 percent survival rate), while 11,500 (or 58 percent) hatched in the styrofoam boxes and survived. Under the second phase of the agencies' plan, 1,200 of these baby turtles were then flown by U.S. Coast Guard plane from Rancho Nuevo to the Galveston lab, also for headstarting. The biologists hope that captive rearing in this manner may reduce the extraordinarily high mortality rate for hatchlings, thereby also insuring the perpetuation of a Rancho Nuevo nesting population in years to come. (It is now believed that for every 100 hatchlings only 1 survives to adulthood.)

Many scientists are cautiously optimistic about the feasibility of headstarting these turtles, as disease and injury has plagued similar past efforts. But Dr. James McVey, head of the Galveston operation, is now reporting more than a 90 percent success rate. The ill and injured ridleys are thus far being isolated, treated, and "recycled" back with healthy turtles with apparent success.

The hatchlings will eventually be fitted with numbered tags and released into areas of the Gulf where there are Kemp's ridleys of the same age class. Select individuals will also be radio-tagged by NMFS and tracked for a week or so following their release.

If headstarting and other aspects of the recovery effort appear successful, the five agencies will tentatively plan similar transplant operations for next summer (at an estimated total annual cost of \$300,000). According to Jack Woody, Endangered Species Specialist for the FWS Albuquerque Regional Office, "It's going to be tough and go for the ridley, if it can be saved at all." But scientists are keeping their fingers crossed, hoping that—within 8 to 10 years—their work may bring "arribadas" to the shores of Padre Island, and again to Rancho Nuevo.



## ENDANGERED SPECIES SCIENTIFIC AUTHORITY

### Notices—September 1978

*Composed of representatives from seven Federal agencies, the Endangered Species Scientific Authority (ESSA) was established by Executive order to insure the scientific soundness of governmental decisions concerning trade in endangered species of animals and plants. As the U.S. Scientific Authority for the Convention on International Trade in Endangered Species of Wild Fauna and Flora, ESSA reviews applications to export and import species protected under the Convention, reviews the status of wild animals and plants impacted by trade, monitors their trade, makes certain findings concerning housing and care of protected specimens, and advises on trade controls.*

## FINDINGS ISSUED FOR '78-'79 EXPORTS OF BOBCAT, LYNX, OTTER, AND GINSENG

In a final rulemaking, the Endangered Species Scientific Authority has modified export restrictions on this season's harvest of bobcats (*Lynx rufus*), lynx (*Lynx canadensis*), and river otters (*Lutra canadensis*), and on the 1978 harvest of wild American ginseng (*Panax quinquefolius*)—(F.R. 9/1/78).

The three furbearers and plant are listed under Appendix II of the trade Convention. As required under articles of the treaty, a permit from the country of origin certifying that export will not be detrimental to the species' continued survival must be issued before its products may be entered into international trade.

In line with the Scientific Authority's



*The young ridleys will be nursed in a controlled environment for up to a year, or until they are large enough to withstand most marine predators.*

Fish & Wildlife Service Photo

responsibility to determine whether export will be detrimental to the survival of these species in the wild, ESSA gave notice last year (see September 1977 BULLETIN) that available population data and existing State management plans generally did not support a finding in favor of export. Since that time, additional population information received and management initiatives taken by the States in behalf of these species prompted ESSA to propose approval of export for a majority of States (see August 1978 BULLETIN).

#### Export Findings

As summarized in the accompanying table, ESSA has found in favor of export of bobcats from 34 States and the Navajo Nation, setting quotas of 6,000 pelts from New Mexico and 2,000 pelts from Wyoming. Export of lynx pelts will be allowed from the States of Alaska, Idaho, Minnesota, Montana, and Washington, and river otter may be exported from 25 States. ESSA has also approved export of American ginseng roots harvested from 17 States.

(Note: ESSA "approval" constitutes its finding that export will not be detrimental to the survival of the species, and that it has no objection to issuance of export permits by the U.S. Management Authority for the Convention [the Service's Wildlife Permit Office]. Approval for this season does not limit the Management Authority from withholding permits on other grounds, however, nor should it be construed as a precedent for approval in the future.)

## ESSA Has Moved

Although its mailing address will remain the same, the Endangered Species Scientific Authority staff has moved to new quarters on the 5th floor of the Matomic Building (1717 H Street, N.W., Washington, D.C.). ESSA's new phone number is (202) 653-5948.

## ESSA Findings

State	Bobcat	Lynx	River Otter	American Ginseng
Alabama	A		A	
Alaska		A	A	
Arizona	A			
Arkansas	A		A	A
California	A			
Colorado	A			
Connecticut			A	
Delaware			A	
Florida	A		A	
Georgia	A		A	A
Idaho	A	A		
Illinois				A
Indiana				A
Iowa				A
Kansas	A			
Kentucky				A
Louisiana	A		A	
Maine	A		A	
Maryland			A	A
Massachusetts	A		A	
Michigan	A		A	A
Minnesota	A	A	A	A
Mississippi	A		A	
Missouri				A
Montana	A	A	A	
Nebraska	A			
Nevada	A			
New Hampshire			A	
New Mexico	A: Q6,000			
New York	A		A	A
North Carolina	A		A	A
North Dakota	A			
Oklahoma	A			
Oregon	A		A	
Pennsylvania				A
Rhode Island			A	
South Carolina	A		A	
South Dakota	A			
Tennessee	A			A
Texas	A			
Vermont	A		A	
Virginia	A		A	A
Washington	A	A	A	
West Virginia	A			A
Wisconsin	A		A	A
Wyoming	A: Q2,000			
Navajo Nation	A			

## Rulemaking Actions--September 1978

### FINAL RULEMAKINGS FIVE WESTERN PLANTS LISTED AS ENDANGERED

In a final rulemaking, the Service has listed four species of plants native to California and one from Utah as Endangered (F.R. 9/28/78).

Following the Secretary of the Smithsonian Institution's report to Congress in January 1975, in which these species were cited as among 3,100 U.S. vascular plants thought to be "endangered, threatened, or extinct," the Service proposed an Endangered classification for the five plants (and nearly 1,700 other vascular plants) on June 16, 1976. Factors such as the past degradation and potential loss of habitat due to housing developments, agricultural use, the filling of coastal salt marshes, road and rail construction, off-road vehicle (ORV) use, and mining operations threaten the continued existence of the plants where they occur in California, northern Baja California, Mexico, and Utah, as none are listed for protection by State law.

The newly protected plants are the:

McDonald's rock cress (*Arabis macdonaldiana*), a member of the mustard family (*Brassicaceae*) native only to Red Mountain, Mendocino County, California. While about half of the species' habitat is on public land administered by Interior's Bureau of Land Management, a mining company anticipates removing as much nickel-containing soil from the public as well as private portions of Red Mountain as is feasible, possibly resulting in the extirpation of the plant.

San Diego pogogyne (*Pogogyne abramsii*), a member of the mint family (*Lamiaceae*) native to western San Diego County, California. Road widening and cloverleaf construction, the use of ORV's, housing developments, agriculture, and illegal dumping within the plant's range are all considered threats to the continued survival of this species.

Crampton's orcutt grass (*Orcuttia mucronata*), a member of the grass family (*Poaceae*) known only from one vernal lakebed in Solano County, California. Housing developments have destroyed many other vernal pools in this area, and increasing agricultural use may pose a threat to the plant in the eventual future.

Salt marsh bird's-beak (*Cordylan-*

*thus maritimus* spp. *maritimus*), a member of the snapdragon family (*Scrophulariaceae*) now confined to the Tijuana River estuary in San Diego County; Point Mugu, Ventura County; and northern Baja California, Mexico. The filling in of coastal salt marshes has reduced or eliminated this plant from much of its historical range, and plans to restore "natural" tidal flow to the marshes of Point Mugu Lagoon may eliminate an entire colony of the species.

A phacelia (*Phacelia argillacea*), a member of the waterleaf family (*Hydrophyllaceae*) surviving only in Utah County, Utah, where in 1977 only nine plants were found. The construction of a railway through this remaining population has seriously threatened the species' survival, and it is feared that any expansion of the access road to the railroad could result in the extinction of the plant.

#### Supporting Data/Comments Received

Status reports on the four California plants were prepared by the California Native Plant Society under contract to

the U.S. Forest Service. In addition to supplying information on habitat, distribution, and endangerment factors, the reports supported the listing of the McDonald's rock cress and the San Diego pogogyne as endangered in the hope that their habitats on Federal lands could be protected. Transplantation of Crampton's orcutt grass (if sufficient numbers are available) to a protected or artificial alkaline pool was also recommended, as was the need for additional research to identify unknown adverse factors influencing the Salt marsh bird's-beak.

The Service received no comments from Mexico or Utah on the proposed ruling, and the State of California offered no objection to the listing of the plants. Hundreds of comments were received from the public on the June 16, 1976, proposal; few were specific in nature, and all were summarized in the April 26, 1978, *Federal Register*.

The Service is now reviewing the status of all five plants to determine if additional protection under the Convention on International Trade in Endangered Species of Wild Fauna and Flora or other international agreements is warranted.

### LEATHERBACK NESTING AREA PROTECTED AS CRITICAL HABITAT

A small area within the Virgin Islands—the only known major nesting beach under U.S. jurisdiction for the Endangered leatherback sea turtle (*Dermochelys coriacea*)—has been designated by the Service as Critical Habitat (F.R. 9/26/78).

Reportedly reaching weights of 1,600 pounds and lengths of 8 feet, the leatherback is the heaviest reptile in existence, ranging throughout the world. The turtle's status is extremely precarious, however, and much hope for its survival and recovery depends upon the maintenance of suitable, undisturbed nesting beaches.

The Service learned of the recently

discovered nesting site for leatherbacks on the island of St. Croix in 1977. Following a visit that summer by Service and other government officials, nearly 80 leatherback nests were located on the western end of the island. (The observers also found evidence of egg poaching, sand mining, and potential industrial development.) It is believed that the 1.9 mile by 0.2 mile strip of Sandy Point Beach designated is the only extensive nesting beach in the area, providing the proper sand size, slope, moisture, and temperature conditions for the successful development and hatching of leatherback eggs.

## Background

On March 23, 1978, the Service proposed Critical Habitat designation for a strip of land 0.8 mile long and 0.1 mile wide (from mean high tide inland) on Sandy Point Beach (see April 1978 BULLETIN). A total of 14 comments were received in response to the proposal. Two respondents, Governor Juan Luis of the U.S. Virgin Islands and John Yntema of the Virgin Islands Department of Conservation and Cultural Affairs, expressed concern that the area proposed was too narrow to include all suitable nesting locations for the leatherback. In line with their recommendations, the Critical Habitat was widened to 0.2 mile.

Otto Tranberg (also of the Island's Department of Conservation and Cultural Affairs), noted in studying 1977 and 1978 activities that as many as 10 percent of the turtles were nesting adjacent to the area proposed for protection. His recommendations that the area be enlarged 0.7 mile on the south shore and 0.4 mile on the north shore were also adopted in the final ruling.

Governor Luis also commented on past cooperation between Federal agencies and the Virgin Islands in conserving the turtle, and noted the Islands' desire to acquire a major portion of the Critical Habitat in hopes of promoting protection efforts.

## Proposed Rulemakings

Because of the changes brought by the 1978 amendments, we have refrained from summarizing September proposals at this time.

All pending listing and Critical Habitat proposals may have to be repropoed and/or augmented with additional information to insure full compliance with the new requirements. Departmental solicitors are working to determine how we must proceed to meet these stipulations, and we will give full notice of new proposal procedures as soon as this information is available.

## Reference Note

All Service notices and proposed and final rulemakings are published in the *Federal Register* in full detail. The parenthetical references given in the BULLETIN—for example: (F.R. 9/28/78)—identify the month, day, and year on which the relevant notice or rulemaking was published in the *Federal Register*.

## Amendments

(continued from page 5)

species or Critical Habitat determination. The amendments specify three additional steps to be taken during the listing process:

- notice to local government units whose boundaries include or are adjacent to the proposed Critical Habitat
- publication of the substance of proposed regulations in affected area newspapers
- publication of the substance of regulations in appropriate scientific journals.

A public hearing must now be held before designation of Critical Habitat. Also, where a species is listed but no Critical Habitat is to be determined, a public meeting shall be held when requested.

All listings and Critical Habitat determinations proposed after enactment of the amendments must be finalized within two years or be withdrawn. (Listings already proposed must be finalized within one year of the date of enactment.) The amendments also call for the periodic review—at least once every five years—of listed species.

Finally, to the maximum extent practicable, the Secretary must include in the proposed and final Critical Habitat rulings a description of activities which may adversely modify the habitat or which may be affected by the designation.

### Agreements to Cover Plants

The amendments, under section 6 (c), now permit the Service to enter into cooperative agreements with the States for the conservation of Endangered and Threatened plants.

The use of Land and Water Conservation funds for the acquisition of habitat for Endangered or Threatened plants has also been authorized (under section 5(a)).

### Recovery Planning

Under a new subsection 4(g), the Secretary is directed to develop and implement recovery plans for the conservation and survival of all Endangered or Threatened species, ". . . unless he finds that such a plan will not promote the conservation of the species." (The services of public and private agencies may be utilized for this purpose.)

### Penalties/Enforcement

With regard to civil penalties, section 11(a) has been amended to make violations by commercial importers or exporters of fish, wildlife, and plants a

liability offense subject to a fine of \$10,000. (Violators are now subject to such penalties without a "knowledge requirement.") The maximum fine for noncommercial offenders under the strict liability provisions has been lowered from \$1,000 to \$500.

Under the criminal penalty provisions, "knowingly" replaces "willfully." Heads of Federal agencies are now authorized to modify, suspend, or revoke permits or licenses to import or export animals or plants or to operate quarantine stations for any person convicted of a criminal violation of the Act.

In both the criminal and civil enforcement sections, the requirement that a person "commit an act" has been removed, thereby allowing prosecution of offenses of omission.

Finally, persons taking Endangered or Threatened species on the good faith belief that they were acting to protect themselves or others from bodily harm are protected from civil and criminal penalties under the Act.

### Exceptions for Raptors, Antiquities

Captive-held raptors and their progeny may be exempted from the Act's permit requirements, if held on the effective date of the amendments. (The Secretary is authorized to require documents, records, inventories, and other proof of eligibility.)

Also, antique articles (except scrimshaw) made from parts of products of listed species before 1830 are now exempted from the Act's provisions. The article must not have been modified with any part of a listed species after December 28, 1973, must be accompanied by appropriate documentation, and must be imported through a designated port of entry.) Individuals wishing to reclaim such articles confiscated since enactment of the 1973 Act may apply for the return of their items within one year of the date of enactment of the 1978 amendments.

### Appropriations Reauthorized

Administration of the Endangered Species Act of 1973 by the Departments of Interior and Commerce is once again official, with appropriations now authorized for another year and a half. For Fiscal Year 1979, the Secretary of the Interior may utilize up to \$23,000,000 in carrying out his responsibilities under the Endangered Species Act, while up to \$12,500,000 is authorized for the 6-month period ending March 31, 1980.

Also, to assist the review boards and the Endangered Species Committee in carrying out their functions, the Secretary is authorized an additional \$900,000 for the same 18-month period.

## Pending Rulemakings

We regret that anticipated schedules for issuance of proposed and final listing actions cannot be provided at this time. We hope to publish updated notices of pending rulemakings in the November *Bulletin*.

## Endangered Species Symposium

Brigham Young University will sponsor "The Endangered Species Symposium: Philosophical, Managerial, and Biological Considerations" on December 7-8, 1978, at the Monte L. Bean Life Science Museum. Registration for the conference, due November 17, is \$40.00. For more information contact the Center for Health and Environmental Studies, 786 WIDB, Brigham Young University, Provo, Utah 84061.

## Regional Briefs

(continued from page 2)

packet of publications and educational materials on endangered species. The 15,000 folders, to be distributed through the Extension Education Service, will contain a booklet on the Endangered Species Act, a poster, and fact sheets on several listed species.

## BOX SCORE OF SPECIES LISTINGS

Category	Number of Endangered Species			Number of Threatened Species		
	U.S.	Foreign	Total	U.S.	Foreign	Total
Mammals .....	33	227	260	3	18	21
Birds .....	67	144	211	3		3
Reptiles .....	11	47	58	10		10
Amphibians .....	5	9	14	2		2
Fishes .....	29	10	39	12		12
Snails .....	2	1	3	5		5
Clams .....	23	2	25			
Crustaceans .....	1		1			
Insects .....	6		6	2		2
Plants .....	20		20	2		2
Total .....	197	440	637	39	18	57

Number of species currently proposed: 158 animals  
1,850 plants (approx.)

Number of Critical Habitats proposed: 73

Number of Critical Habitats listed: 33

Number of Recovery Teams appointed: 64

Number of Recovery Plans approved: 18

Number of Cooperative Agreements signed with States: 22

September 30, 1978

**Alaska Area.** In September, 139 Aleutian Canada geese (*Branta canadensis leucopareia*) began their fall migration from Agattu Island in the Aleutian Islands to their wintering place in northern California. The geese—eliminated from Agattu by arctic foxes introduced in the early 1800's—were released on the island this summer in an attempt to reestablish a breeding population. (More than 100 of the birds were raised in captivity on Amchitka Island and at the Ser-

vice's Patuxent Wildlife Research Center during 1977.)

In hopes of learning more about the bird's mysterious migration patterns, biologists have equipped the "pioneer" geese with blue neck collars bearing 3-digit white lettering. Individuals are encouraged to report any sightings of the blue-collared geese to the nearest Service office, as such information will be vital to the development of conservation plans for this Endangered species.



## ENDANGERED SPECIES TECHNICAL BULLETIN



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